CALLBACK ASRS

From NASA's Aviation Safety Reporting System

Number 192 **May 1995**

It's *Almost* Summertime

Although summer is just around the corner, one winter-type woe often hangs around long after winter is officially past. Unforecast or unexpected IMC can turn an otherwise pleasant flight into a stressful one.

■ *The flight was conducted in VMC. Turn to final approach course was a sharp descending turn from VMC into IMC. I immediately got disoriented and started hyperventilating. After a short period of time that felt like forever, I decided to abandon the approach and advised Tower Controller. I calmed myself down [subsequently]...and successfully completed an ILS approach and landing. Though I am legally current and have a significant amount of "real" instrument time given my level of experience, I plan to grab an instructor and go get some more, particularly with the VMC-to-IMC transition.*

Our reporter has the right idea. A springtime "tune-up" is a good plan for pilots, and for aircraft, too.

Air carrier aircraft are not immune from the perils of unforecast IMC. The next report illustrates how little problems can grow into big ones, even for large aircraft.

■ *After takeoff, both magnetic compass systems began to precess. We quickly determined that we could navigate safely using our VORs and by updating our magnetic compasses with reference to the standby compass. We were safe and legal to continue, provided we remained in visual conditions. As we approached [our destination], the weather deteriorated and we requested a vector to our alternate. Due to our reduced reserve fuel from circumnavigating en route weather, we declared an emergency to receive priority handling.*

The Last Icicle

Some pilots may associate icing only with winter flying. As the following reports illustrate, and as Murphy's law would have it, carburetor and fuel system icing can occur anytime.

■ *Two tailwheel-qualified CFIs were on board for a training flight. Carb heat was applied and the throttle closed in preparation for a power-off stall. As the aircraft approached a stall attitude, the prop stopped abruptly. The air temperature and dew point were 53 and 44 degrees Fahrenheit, respectively. These parameters plot in the region of maximum carb ice probability. Although full carb heat was applied prior to closing the throttle, the heat may have been insufficient.*

The next reporter, a pilot of a corporate twin, had expected better performance from his turbocharged engines. He is now looking into ways of preventing a repeat of this incident:

■ *After departure...to avoid an inadvertent cloud encounter and potential ice, I proceeded to 17,500 feet. About one minute later, the right engine began to miss and the EGT gauge dropped all the way down. The cylinder head temperature on the left engine dropped abruptly, as did the [temperature] on the right engine. Both engines were running rough. There was no change in manifold air pressure, RPM or other engine instruments. [We made a long, slow descent to a nearby airport]. At 6,000 feet, both cylinder head temperatures came up and the engines smoothed out.*

After some investigation back on solid ground, our reporter found small amounts of water in the sump and concluded:

My assumption is that the super-cooled fuel created ice crystals, which, when ingested by the engine, caused the roughness.

Spring Fever

A holdover from springtime is hay fever, allergies, and sinus problems. Some pilots are affected all year long, their afflictions causing conflictions, as this First Officer reports:

■ *We were descending in holding to FL220. The Captain (not flying) was clearing a sinus block. I was cleared lower, I thought to FL190. The Captain did not hear the clearance, but saw me set FL190 in the altitude reminder and he read back the clearance to FL190. ATC responded that we were only cleared to FL200 and turned us behind [conflicting] traffic without incident.*

A contributing factor was the ear block, [which] made it difficult for the Captain to hear and repeatedly distracted him as he tried to clear it.

A passenger's allergies can also make life exciting for the pilot.

■ *During descent, my wife began having an allergy attack and requested her medicine from the rear seat. As I turned to reach for the medicine, I inadvertently disconnected the autopilot. I reactivated it, [but] in my haste to help my wife, I neglected to reactivate the descent altitude warning system. I was subconsciously relying on the altitude warning system to advise me of my assigned lower altitude. The Center Controller then said he showed me 700 feet below my assigned altitude. I immediately corrected altitude and was then handed off to Approach. Lesson learned: Even when flying in the company of a distraught and medically needy wife, the pilot must always first fly the airplane.*

Or as an anonymous ASRS staffer noted, "better to receive the nagging of a spouse than the snagging of an aircraft by Mother Earth."

ASRS Recently Issued Alerts On...
An uncharted flight restriction area in the Southwest
A non-standard rotating beacon at a Minnesota airport
Concerns over a new FAA flow control program (MAPS)
Multiple incidents of Airbus 320 false engine fire warnings
Frequency "blind spots" at an ATC transmitter/receiver site

A Monthly Safety Bulletin from
The Office of the NASA Aviation Safety Reporting System,
P.O. Box 189,
Moffett Field, CA
94035-0189

March 1995 Report Intake	
Air Carrier Pilots	2123
General Aviation Pilots	848
Controllers	64
Cabin/Mechanics/Military/Other	20
TOTAL	**3055**

MEL-ancholy Miscellany

"If you want it done right, do it yourself," common wisdom goes. Actually, doing it yourself usually is not necessary if the flight crew and ground crew coordinate their efforts and follow company policies regarding MELs (Minimum Equipment Lists). In this ASRS report from a Part 135 commuter First Officer, a breakdown in communication opened the door–or rather the cowling–to a mishap that could have had much more serious consequences.

■ *Our crew arrived late... The PIC was briefed on three open maintenance items, and departed to speak with dispatch. I completed an exterior safety inspection at the same time maintenance personnel began work on the outstanding items. [We] were briefed that the first two items were completed and signed off, and the third item was to be deferred as per the MEL. At no time was the crew informed that a cowling had been opened in order to look at the third maintenance item, and then been closed.*

Climbing through 2000 feet...a passenger noticed the #2 nacelle cowling had blown open.

Perhaps the greatest contributing factor was the failure in communication between maintenance and the crew. [Usually] a second quality assurance checker inspects and then signs off the work. This does not appear to have happened in this instance. Perhaps, too, the crew's eagerness to complete their trip was a contributing factor. Presently, company policy is being reviewed to prevent this from occurring again.

It's possible, too, that the maintenance personnel also felt the schedule pressure, and in their effort to speed matters along, overlooked their own quality assurance procedures.

Different Day, Same Story

Pilots sometimes see the same logbook write-up time after time. At some point, the write-up may be unconsciously viewed as a "non-event," and hence given a low priority in the course of normal pre-flight actions.

■ *Aircraft had two CDL items (Configuration Deviation List–similar to an MEL except related to airframe items), both for covers for landing gear hinges. This CDL is common, and the only usual flight crew action is to apply a slight weight penalty to the max takeoff weight. [Later], a careful reading of the CDL revealed that while two hinge covers could be missing, they had to be on the same side. These were on opposite sides.*

"No Problem"

The pressures of on-time departures may lead some pilots to abide by the letter of an MEL, but forget the spirit of "safety first." More from this ASRS report:

■ *I was scheduled to deadhead on this particular flight.* Twenty minutes before scheduled departure time, I was paged and told to call crew scheduling . I was asked to then fly as Captain on that particular flight since the regular scheduled Captain's wife had become ill and [he] needed to return home. "No problem," I said.

By the time I changed into uniform, obtained the necessary paperwork and seated myself in the cockpit, it was 5 minutes prior to push. It was then that I found out that since this particular aircraft had just come from a rework facility, that no catering supplies were on board–no beverages (including coffee) or snacks –and nothing could be found prior to taking a 1-hour delay. Additionally, one of the local home town carriers canceled a flight and sent all their passengers over with no advance notice. The flight was now oversold.

Next, the Flight Attendant informs me that the cabin PA volume is very weak and hard to hear. It's now scheduled departure time with every seat occupied and everyone aware that no beverages or snack would be served. Do I then inform the passengers that we will take a maintenance delay to look over the PA system? No, let's make them happy and arrive on time. After pushback and engine start, the Flight Attendant informs me that the PA volume is so low that it cannot be heard. The MEL says we can dispatch without it, so we proceed with alternative means. After takeoff, I find out that one of the megaphones, which preflight checked OK, was also not working properly...

Problems don't fix themselves. They only get worse and compound...My late arrival to the cockpit certainly didn't help matters. Had I been there sooner, I would not have hesitated calling maintenance. I let being "on time" cloud my judgment of safety first. Fix the problems early before they get worse and unfixable.

The Paper Chase

MELs are not the only source of melancholy for pilots. Company-required paperwork can sometimes distract pilots from their flying duties, as was the situation in this deviation report from an air carrier Captain:

■ *Over the VOR, the First Officer (F/O) requested, "Direct ABC."* The Controller responded with the altimeter and what I thought was, "When able, direct ABC." In reality, he said, "*Un*able direct ABC." The F/O responded with the flight number. I should have been more aware that the F/O did not read back, "Direct ABC." His attention was distracted by company paperwork. The solution is obvious: Read back all clearances.

BULK RATE
POSTAGE & FEES PAID
NASA
Permit No. G-27

NASA

National Aeronautics and
Space Administration

Ames Research Center
Moffett Field, California 94035-1000

**Official Business
Penalty for Private Use, $300**